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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/554,170	10/21/2005	Masayuki Kashimura	10936-92	1972
23570 7590 06/19/2009 PORTER WRIGHT MORRIS & ARTHUR, LLP INTELLECTUAL PROPERTY GROUP 41 SOUTH HIGH STREET 28TH FLOOR COLUMBUS, OH 43215				
EXAMINER				
KRUEER, KEVIN R				
ART UNIT		PAPER NUMBER		
1794				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/554,170

**Applicant(s)**

KASHIMURA ET AL.

**Examiner**

KEVIN R. KRUEER

**Art Unit**

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on March 9, 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO99/52973 (herein referred to as Ohba) in view of Bekele (US 5,482,770). NOTE: US 6,605,344 is herein relied upon as an English translation of the WO document.

Ohba teaches a gas barrier film which is produced by applying a metallic compound to the surface of a poly(meth)acrylic polymer layer (abstract). The metallic compound may be utilized alone or compounded with a resin (col 3, lines 50+). The metallic compound may comprise an alkaline earth metal or transition metal having an oxidation number of +2 (col 7, lines 22-25). The thickness of the poly(meth)acrylic layer is 0.1-50um (col 6, lines 59+). The metallic compound is applied in amounts of 0.03-20g/square meter (col 8, lines 21+). A polymer layer may be applied to the metallic compound layer (col 10, lines 26+) and a heat sealable layer may be applied to said outer polymer layer (col 10, lines 43+). Herein, the polymer layer is herein understood to read on the claimed base film and the heat sealable layer is understood to read on the claimed heat sensitive tackifier of claim 18 and the additional layer of claim 9. The film is used to package materials (col 10, lines 63+-herein understood to read on the

claimed label and packaging embodiments of claims 17-20) and meets the claimed barrier properties (see Table 1).

Ohba does not teach the film should be heat shrinkable. However, Bekele teaches is it desirable for barrier packaging films to be heat shrinkable. Said films are made heat shrinkable by orienting said film and then heating the film so that it returns to its pre-oriented state. Shrink is directly proportional to the degree of orientation (col 1, lines 55+). Thus, it would have been obvious to one having ordinary skill in the art to orient the film in order to obtain and make it heat shrinkable because heat shrinkability is desired in the barrier packaging art. Furthermore, it would have been obvious to control the degree of orientation in order to obtain the desired level of heat shrinkage.

With regards to claim 5, Ohba does not teach the claimed relative thicknesses. However, it would have been obvious to the skilled artisan to vary the relative thicknesses of the layers taught in Ohba in order to optimize the film's properties and processability according to the desired end use of the film.

With regards to claim 11, said property is understood to be inherent to the film taught in Ohba.

With regards to the limitation that the coating is free of polyalcohol, Ohba teaches the polyalcohol is present in amounts of 1% or greater (col 5, lines 50+). However, it would have been obvious to eliminate the polyalcohol because the functions attributed thereto are not required in the barrier coating. Furthermore, the courts have held a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected

them to have the same properties. Thus, it would have been obvious to utilize a coating with 0% polyalcohol because the skilled artisan would expect a composition free of polyalcohol to have the same properties as the disclosed composition having 1% polyalcohol.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO03/091317 (Kureha) in view of Bekele (US 5,482,770). NOTE: US 7,476,712 is herein relied upon as an English translation of the WO document.

Kureha teaches a gas barrier film which is produced by applying a metallic compound to the surface of a poly(meth)acrylic polymer layer (col 5, lines 52+). The metallic compound may be utilized alone or compounded with a resin (col 11, lines 63+). The metallic compound may comprise an alkaline earth metal or transition metal having an oxidation number of +2 (col 11, lines 48+). The thickness of the poly(meth)acrylic layer is 0.1-100um (col 18, lines 16+). The metallic compound is applied in amounts of 0.2eq or more on the basis of carboxyl groups (col 8, lines 21+, col 22, lines 1+). A polymer layer may be applied to the metallic compound layer (col 11, lines 1+) and a heat sealable layer may be applied to said outer polymer layer (col 29, lines 9+). Herein, the polymer layer is herein understood to read on the claimed base film and the heat sealable layer is understood to read on the claimed heat sensitive tackifier of claim 18 and the additional layer of claim 9. The film is used to package materials (col 29, lines 9+ -herein understood to read on the claimed label and packaging embodiments of claims 17-20) and meets the claimed barrier properties.

Kureha teaches the film may be shrinkable (col 29, line 27+) but does not teach the film should be heat shrinkable. However, Bekele teaches is it desirable for barrier packaging films to be heat shrinkable. Said films are made heat shrinkable by orienting said film and then heating the film so that it returns to its pre-oriented state. Shrink is directly proportional to the degree of orientation (col 1, lines 55+). Thus, it would have been obvious to one having ordinary skill in the art to orient the film in order to obtain and make it heat shrinkable to the desired extent because heat shrinkability is desired in the barrier packaging art. Furthermore, it would have been obvious to control the degree of orientation in order to obtain the desired level of heat shrinkage.

With regards to claim 5, Kureha does not teach the claimed relative thicknesses. However, it would have been obvious to the skilled artisan to vary the relative thicknesses of the layers taught in Kureha in order to optimize the film's properties and processability according to the desired end use of the film.

With regards to claim 11, said property is understood to be inherent to the film taught in Kureha.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's first argument is that Ohba contains a polyalcohol. Said argument is noted and has been addressed in the newly applied rejections.

Second, Applicant argues that if Ohba were to employ a heat shrinkable film as a substrate, the heat treatment necessary to render the polymer layer water resistant

would cause the heat shrinkable film to shrink and render it unusable for applications requiring heat shrinkability. Said argument is noted but not persuasive because the film may be oriented after application of the polymer layer. Furthermore, Applicant argues shrinking the film after application would probably destroy the crosslinked structure of the polymer layer. Said argument is noted but is not persuasive because counsel's argument cannot take the place of evidence. There is nothing on record which supports the conclusion the skilled artisan would have expected the crosslinked structure to be destroyed by heat shrinking.

Third, applicant argues the oxygen permeability of claim 1 is not met by Ohba. The examiner respectfully disagrees and points to the data reported for the examples wherein the permeability meets the claimed limitations.

For the reasons noted above, the rejections are maintained.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN R. KRUER whose telephone number is (571)272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin R Krue/

Primary Examiner, Art Unit 1794